

Awareness of medical writing as a profession and its career prospects:

A survey conducted among medical writers working for a global pharmaceutical company operating in India

Pinki Rajeev and Mittal Makhija

Novartis Healthcare Pvt Ltd, Hyderabad, India

Correspondence to:

Mittal Makhija
Senior Scientific Writer
Medical Communications
Novartis Healthcare Pvt Ltd
Inorbit Mall Road, Hitech City
Raidurg, Hyderabad-500032, India
+91-9833734294
mittal.makhija@novartis.com

Abstract

As medical writing (MW) is a growing profession in India, we assessed the awareness among professional medical writers (PMWs) about their job and career prospects. We conducted an anonymous survey among PMWs ($N=192$) working in a global pharmaceutical company (Novartis Healthcare, India). The survey assessed their awareness level, education/skillset utilisation, and career aspirations. Results showed that the respondents ($N=154$) were highly qualified (97% had a master's/PhD/equivalent degree) and experienced in the MW field. Only 10% were fully aware of MW as a profession before entering the field, which increased to 57% after joining the profession. PMWs (93%) indicated that their education/skillset was utilised from a good to great extent; their skills were transferable and most had grown within or across functional/operational domains. Most respondents indicated a desire to continue in the profession for at least 5 years (40% for 5 to 10 years and 34% for more than 10 years). Almost an equal proportion preferred to grow as functional (38%) or operational (39%) experts. With ample growth avenues and skillset utilisation, MW may be a rewarding long-term profession.



Introduction

In India, the medical writing (MW) profession has grown steadily since 2005¹ and has expanded its horizons because of the availability of a large pool of skilled professionals, English speakers, and an advantage in cost. The overall estimated costs in generating medical content in India is 40% to 60% of the costs in the USA and Europe.² As the majority of MW is done in English – the *lingua franca* of the medical sciences – many pharmaceutical companies have set up dedicated MW departments in India.³ Although most professional medical writers (PMWs) work within pharmaceutical industries, contract research organisations (CROs) or knowledge process outsourcing companies (KPOs) or as freelancers, there are other settings where they are employed, such as medical media companies, medical journals, academic institutions, scientific

societies, healthcare websites, and governmental organisations.^{4,5}

There are different MW business models operating in India generating ample growth opportunities for MW professionals. Pharmaceutical companies typically have in-house writing teams integrated with medical or regulatory affairs departments. The advantage is that the writers work very closely with the authors or scientific teams and are privy to the company's product strategy and communication plan. Thus, the writers are better placed to support the stakeholders in putting the scientific messages or data into the right context. On the other hand, CROs or medical communications agencies work under a service delivery model, where they cater MW services to different pharmaceutical/healthcare companies and are generally not an integral part of their clients'

organisations. Some pharmaceutical companies follow a hybrid model, i.e., sourcing MW services from an economical location to internal clients based in different geographical areas. This business model offers a dual advantage, being in-house, medical writers are closer to company strategy and provide services in a cost-effective manner to internal teams.

The key attributes of a PMW include an understanding of medical science, a flair for writing, command of language, ability to identify target audiences, attention to detail, good analytical skills, stakeholder management, managing tight deadlines, and teamwork. Graduates and postgraduates in life sciences who have the right skills and aptitude make a good fit as PMWs. MW skills are transferable, providing for the ability to transfer from one writing domain to another. Working in regulatory MW gives the medical writer an overview of the entire clinical development process, so it is an ideal starting point for other careers in the pharmaceutical industry, such as regulatory affairs, clinical research, document management, and even marketing. Those in medical communications may move into editorial roles at publishing companies, medico-marketing, or into the medical information profession.⁶ The growth avenues for medical writers are vast within a pharmaceutical or healthcare communications company or a CRO.

India has the second largest English-speaking scientific force in the world after the USA. There are thousands of new graduates with master's and PhD degrees adding to that pool every year.⁷ Although the MW profession has been in India for a long time, the awareness about this profession among prospective job applicants/medical writers seems to be limited; unlike Europe and the USA where MW is an established profession. Furthermore, no information is available about how well-informed PMWs are about their profession, career prospects, and growth avenues within the profession. Hence, it would be interesting to know if PMWs working in India find MW a fulfilling/rewarding career path. To address these questions, we conducted an online survey among the PMWs working in the medical communications and the medical information departments of a global pharmaceutical company in India.

Methodology

Survey questionnaire

The survey consisted of 10 questions in English (Appendix). The questionnaire included multiple choice questions (check one or check all), Likert scales (1–10 scale; with 1–3: no/very little; 4–7: somewhat/good extent; 8–10: fully/great extent), and free text options where applicable. The survey questions evaluated the participant's background and three key themes: (1) MW profession awareness, (2) education/ skill set utilisation, and (3) career aspirations of PMWs.

The awareness theme included questions on (1) PMWs' level of awareness about the MW profession pre- and post-placement, (2) the source of their awareness, and (3) entry into the MW profession "by chance" or "by choice". Education/skillset utilisation in the MW profession was gauged by the tenure and number of roles experienced by the PMW. To evaluate career aspirations, we included questions such as (a) how long the PMWs would like to continue in the MW profession (1–3 years, 5–10 years or >10 years) and (b) how they would like to grow in this profession, either in a functional (senior/expert writer, scientific editor scientific/medical lead, etc.) or an operational role (people manager, account manager, project manager, etc.).

Survey participants and conduct

The survey was conducted using the online tool SurveyGizmo®. The survey link was distributed by email to PMWs working in the medical communications and medical information departments of Novartis Healthcare Pvt Ltd, Hyderabad, India. The message included a cover letter explaining the survey purpose and duration and the contact details of those responsible in case of any questions or concerns. Participants

were requested to complete the survey within 1 week (deadline November 24, 2017). There was no compulsion to complete the survey, the respondents were allowed to leave questions unanswered, and responses were anonymous.

Analysis of data

Data were analysed descriptively. A *post-hoc* analysis by the respondents' years of experience in PMW was also performed.

Results

Background of respondents

The survey was sent to 192 PMWs, 174 (91%) of whom attempted the survey, completing it fully or partially. Only 154 (80%) of the respondents who completed the survey were analysed further. The highest qualification that most respondents had was a master's (50%), followed by a doctorate (47%) in life sciences/pharmaceutical sciences, whereas only a few had a bachelor's degree (3%) in medicine or dentistry. Most respondents (32%) had MW experience of more than 5 years, followed by 25% with 3–5 years, 27% with 1–3 years, and 16% with less than 1 year.

Awareness of the MW profession

Respondents selected multiple channels through which they became aware of the MW profession. Among the predefined channels or free texts (others), the most common sources identified were seniors/friends/relatives (52%, *n*=80), followed by job portals/LinkedIn/newspapers (51%, *n*=78), and recruiters (22%, *n*=34) (Figure 1). A majority of the respondents (66%) entered the MW profession "by choice" and 34% "by chance".

The mean awareness level of the MW profession among the survey group during pre-placement was 5 (somewhat knowledge),



Figure 1. Sources of medical writing awareness

Question: how did you come to know about medical writing profession? Select all that are applicable.

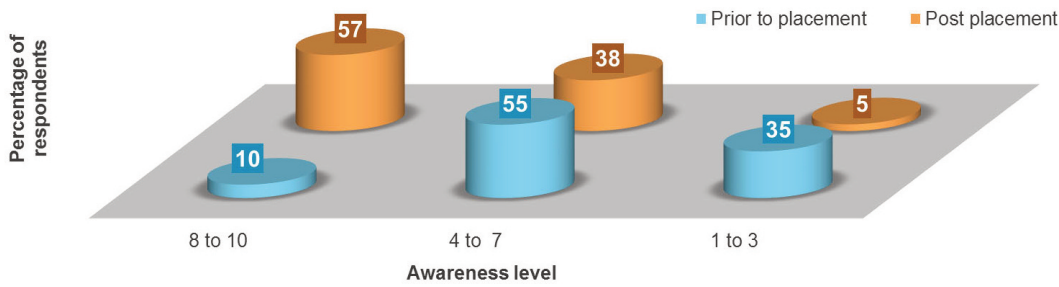


Figure 2. Respondents’ awareness about the MW profession pre- and post-placement

Scale, 1–10; 1–3: no or very little knowledge; 4–7: somewhat knowledge; 8–10: fully aware.

Question: prior to getting into the MW profession, how well you were aware of MW profession and its growth avenues, i.e., transferable skills across regulatory writing, scientific writing, medico-marketing, medical information, HEOR writing, grant writing, patent writing, etc.?

Question: currently, how well you are aware of MW profession and its growth avenues, i.e., transferable skills across regulatory writing, scientific writing, medico-marketing, medical information, HEOR writing, grant writing, patent writing, etc.?

Abbreviations: HEOR, health economics and outcome research; MW, medical writing

which improved to 8 (fully aware) post-placement. The survey group became more aware (scored 8–10) post-placement (57%) compared with pre-placement (10%) (Figure 2).

The subgroup analyses showed that with increasing years of experience, the awareness

(scale 8–10) of the MW profession increased; post-placement awareness percentage was high in the group with more than 5 years of experience (78% [38 of 49]), followed by 3 to 5 years (56% [22 of 39]) (Figure 3).

Apart from the core writing role, the different roles that PMWs most commonly switched to were people manager ($n=31$) followed by project manager/specialist ($n=25$) (Figure 4). The number of functional role switches ($n=68$) was similar to operational role switches ($n=75$).

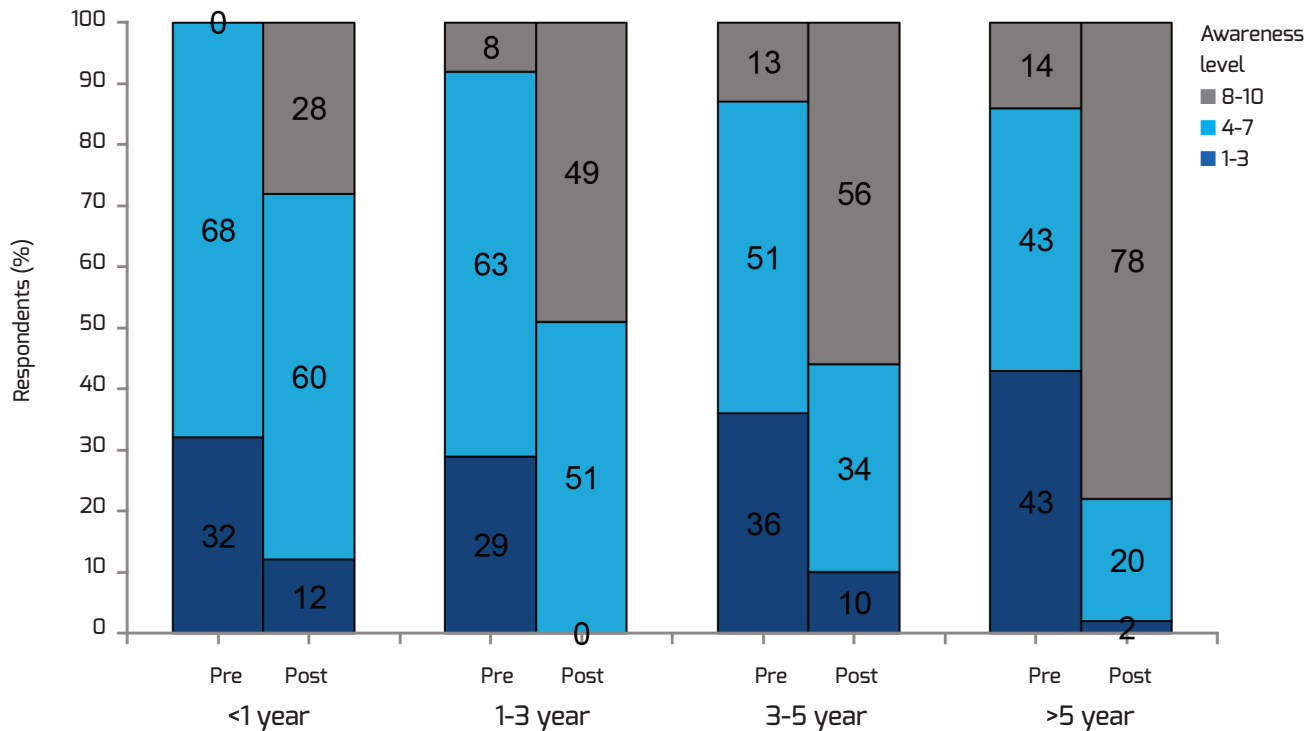


Figure 3. Awareness percentage across experienced groups pre- and post-placement in MW profession

Scale, 1–10; 1–3: no or very little knowledge; 4–7: somewhat knowledge; 8–10: fully aware.

Abbreviations: MW, medical writing.

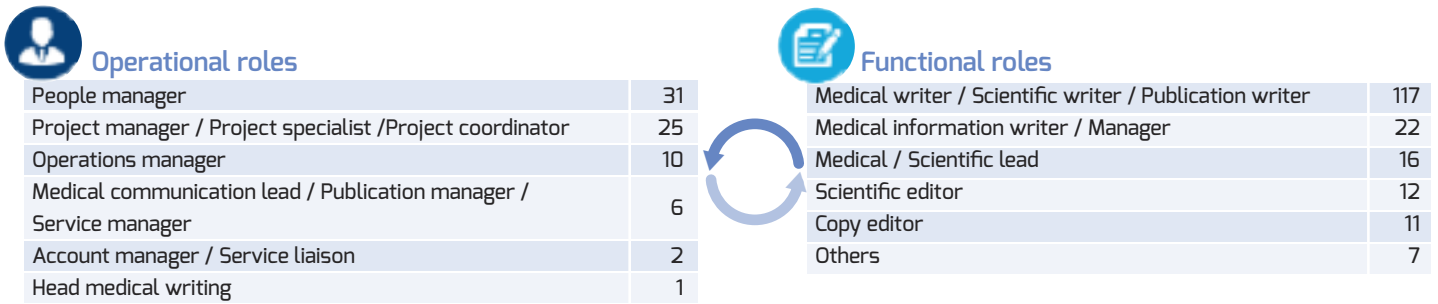


Figure 4. Number of different roles PMWs switched during their MW career

Question: which of the following roles in the medical writing profession you have been during your career path? Select all that are applicable.

Abbreviations: PMW, professional medical writer.

Most respondents (93%) indicated that their education/skillset was well utilised in the MW profession; 51% scored 8 to 10 (fully/great extent) and 42% scored 4 to 7 (somewhat/good extent) (Figure 5). The overall mean score for education/skillset utilisation was 7; among the different years of experiences, those with more than 5 years of experience scored 8, with 3-5 years of experience scored 7, and those with less than 1 year of experience scored 7. (Figure 5).

Career aspirations

Almost an equal proportion of respondents indicated that they would like to grow as a functional expert (38%) (senior/expert writer, scientific editor, scientific/medical lead, etc.) or as an operational expert (39%) (people manager, account manager, project manager, etc.). Some wanted to move outside the MW profession (13%), while a few (10%) did not have clarity about their future career paths.

Overall, 61 (40%) of the respondents indicated that they would like to continue in the MW profession for 5 to 10 years, followed by 52 (34%) for more than 10 years (Figure 6).

Discussion

This survey was conducted amongst MW professionals who work for a global pharmaceutical company and represents one of the largest pools of medical writers in India. The survey results provide valuable insights on PMWs’ educational qualifications and experience, awareness level about the MW profession and its areas of growth, their education/skill set utilisation, and career aspirations. One limitation of this study is that the survey was restricted to Novartis associates only, which may limit the generalisability of the results.

The survey respondents were highly qualified and experienced MW professionals. There was a good mix of experience across junior to senior levels with most of them having more than 5 years or 3 to 5 years of experience in the MW profession. They also displayed an impressive range of degrees similar to another international survey group that included MW professionals from the USA and Europe.⁸

As evident from this survey, informal channels like seniors/ friends/relatives or job portals are the most common sources of information about the MW profession in India. Most respondents (90%) lacked full awareness about the MW profession prior to getting into the profession (pre-placement). However, post-placement, the mean awareness score increased from 5 to 8, i.e., the PMWs became fully aware about the profession. With experience, the level of awareness also increased. Although there was a lack of awareness pre-placement, about two-thirds of the respondents said that they entered this profession “by choice” and a few stumbled

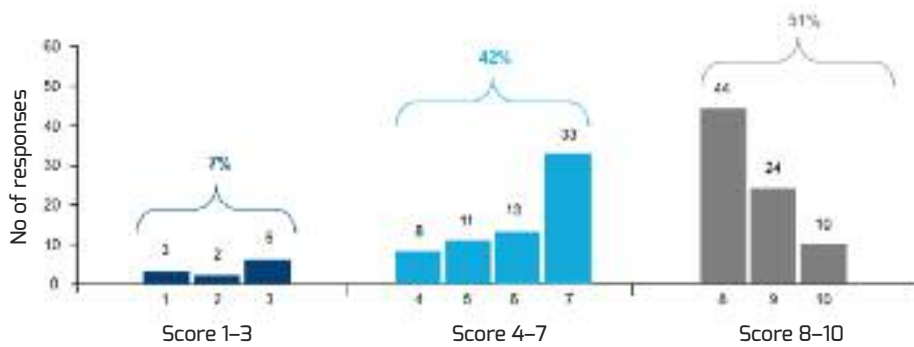


Figure 5. Education/skillset utilisation among PMW

Scale, 1–10: 1–3: no, very little; 4–7: somewhat, to a good extent; 8–10: fully, to a great extent.

Question: do you think that the MW profession provides you a platform to utilise your education and skills?

Abbreviations: MW, medical writing; PMW, professional medical writer.

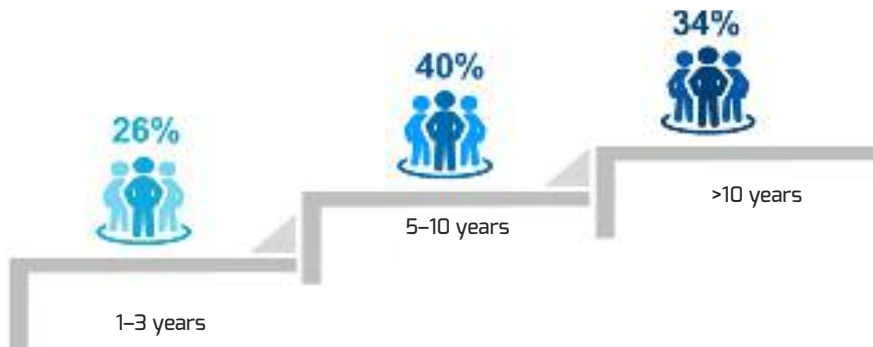


Figure 6. Percentage of respondents wishing to continue in the MW profession

Question: how long would you like to continue in the MW profession?

upon this profession “by chance”. Notably, in another survey, the PMWs from the USA and Europe were well aware of the MW profession and had a clear rationale for choosing MW as their career. Most of them originally considered MW as a career because they “enjoyed writing” (70%), some thought that it fit their degree/previous experience (52%), some “wanted a change” (45%), a few (20%) said “flexibility” and “work-life balance”, and 25% had a “desire to help patients and advance healthcare”.⁸ The lack of awareness in India could be due to the lack of formal education options in MW in academia or professional certification programmes.⁴ This may restrict it to being a preferred career choice by life science or medical graduates compared with other professions.

In recent years in India, a few online MW courses have become available, and awareness about the MW field is being spread by MW associations through seminars and conferences.^{9, 10} However, there is still a pressing need to create awareness about the profession and associated career prospects. As noted by Sharma, the awareness level may potentially be improved by (a) setting up certified, industry-led training programmes with a controlled curriculum, (b) providing internships to potential writing aspirants in reputable companies, (c) introducing scientific writing in the academic environment, (d) organising local MW conferences/ workshops/publications to increase awareness about the profession.¹ This may help to bridge the demand-supply gap and give career opportunities to an existing qualified and talented pool in India.

Most respondents (93%) said that their education/skillset was well utilised in their MW function regardless of whether they entered into MW “by choice” or “by chance” and found their career to be a fulfilling one. The education/skillset utilisation score was quite high across all experience groups, indicating that all the PMWs right from entry to a senior level were optimally engaged and had ample growth opportunities. There were many opportunities to switch into different roles both functionally and/or operationally; the number of roles that PMWs switched in their career was as high as six different roles. Apart from the growth within

their core writing role, 39% of PMWs had an opportunity to switch into at least two different roles; therein, 77% had been in both functional and operational roles. PMWs with more than 5 years in the MW profession had a higher number of role switches, maybe because of the long stint in the MW profession.

The highest number of moves made by PMWs were into people management or project management or medical/scientific lead roles. A few moves mentioned under the “others” category were medico-marketing, competitive intelligence, regulatory writing, and medical scientific liaison. This shows that the skills acquired in the MW role are transferable and one can move across the MW domain depending on one’s skill set and career aspirations. Like other developed countries, India has a good growth platform for medical writers. Regardless of the position one chooses as a starting point in a career within MW profession, there is a scope to change direction and to progress in different directions.⁶

A few years ago, many writers in India would join the profession but then move on to the “next big thing” after just a couple of years of writing, using MW as a gateway into the pharmaceutical company.¹⁰ Our survey results show a shift in the trend, the majority of the respondents (74%) preferred to continue in the MW profession for more than 5 years and had equal preference to grow either as a functional expert (38%) or as an operational expert (39%). As evident from this survey, the skillset utilisation and the opportunities to grow as per PMWs’ aspirations may be the contributing factor for their choice to continue for long in this career. Moreover, compensation, job security, and working conditions are generally good with a good work-life balance in this profession.^{8,11}

Conclusions

In India, there is a rich pool of highly qualified and experienced PMWs. For many PMWs, the growth avenues and skillset utilisation may make MW a rewarding profession, motivating them to pursue it as a lifetime career. The results of this survey revealed that the awareness about MW among PMWs increased substantially post-

placement. However, there is a need to increase the awareness about the MW profession and its growth avenues among students/budding PMWs. This article gives direction to aspiring medical writers about the possible growth avenues, insights into the MW industry and the PMW talent pool available in India.

Declaration of funding

No funding was received for this study.

Conflict of interest

The authors are employees of Novartis.

Acknowledgements

The authors are grateful to all who responded to the survey. The authors also wish to thank Lakshmanan Kamuthurai for copyediting support and Dr Madhavi Dokku for her valuable input.

References

1. Sharma S. Development of medical writing in India: Past, present and future. *Perspect Clin Res.* 2017;8(1):45–50.
2. Stevenson C, Kuppam H. Outsourcing medical writing to India and other low cost regions? Insights and strategies for improving quality and cost benefits. 2014 [cited 2018 Sep 7]. Available from: <https://www.beroeinc.com/whitepaper-viewer/outsourcing-medical-writing/>.
3. Korieth K. Demand for medical writing continues to rise. *Cent Watch Mon.* 2008;15(12):8–13.
4. Sharma S. How to become a competent medical writer? *Perspect Clin Res.* 2010;1(1):33–7.
5. Moon A. From academic to medical writer. 2016 [cited 2018 May 17]. Available at <http://medcommsnetworking.com/careersguide.pdf>.
6. Jackson S, Billiones R. A career guide to medical writing. [cited 2018 May 17]. Available at <https://www.emwa.org/Documents/Resources/EMWA%20MW%20Career%20Guide%20Oct2016.pdf>.
7. Bose S. Medical writing in India at a crossroads. *Medical Writ.* 2013;22(2):94–5.
8. Walker S, Opie J. Writing for pharmaceutical or medical device companies: A survey of entry requirements, career paths, quality of life, and personal observations. *Med Writ.* 2016;25(2):21–9.

In India, the medical writing profession has grown steadily since 2005 and has expanded its horizons because of the availability of a large pool of skilled professionals.

9. Shirke S. Medical writing on an accelerated path in India. *Perspect Clin Res.* 2015;6(3):125–8.
10. Das N, Das S. The changing face of medical writing in India. *Med Writ.* 2013;22(2):90–3.
11. Makhija M, Semwal A, Sinha S. A day in the life of professional medical writer: An online survey based study. *Curr Med Res Opin.* 2016;32:SS–18.

Author information

Pinki Rajeev, PhD, is the Function Head, Medical Communication, at Novartis Healthcare, India. She has degrees in life science and business administration and has over 12 years of experience in the medical communications field. She specialises in vaccines, pharmaceutical medical writing, and business operations.

Mittal Makhija is a senior scientific writer at Novartis Healthcare, India. She has a master's in Pharmacology and has over 7 years of experience in medical affairs and medical communications within the pharmaceutical industry.

Awareness About Medical Writing Profession

1. How long you have been associated with the Medical Writing field?

- < 1 year
- 1–3 years
- 3–5 years
- > 5 years

2. What is your highest educational qualification?

- Graduate degree (please specify, mandatory field)
- Postgraduate degree (please specify, mandatory field)
- Doctorate degree (please specify, mandatory field)

3. How did you get into the Medical Writing field?

- By chance
- By choice

4. How did you come to know about Medical Writing field? (select all that are applicable)

- Recruiters
- Seniors/friends/relatives
- College campus hiring
- Job portals/LinkedIn/newspapers, etc.
- Others (please specify)

5. Prior to getting into the Medical Writing field, how well you were aware of Medical Writing profession and its growth avenues, i.e., transferable skills across regulatory writing; scientific writing; medico marketing; medical information; HEOR writing; grant writing; patent writing, etc.?

- 1–3: no or very little knowledge
 - 4–7: somewhat knowledge
 - 8–10: fully aware
- | | | | | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

6. Currently, how well you are aware of Medical Writing profession and its growth avenues, i.e., transferable skills across regulatory writing; scientific writing; medico marketing; medical information; HEOR writing; grant writing; patent writing, etc.?

- 1–3: no or very little knowledge
 - 4–7: somewhat knowledge
 - 8–10: fully aware
- | | | | | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

7. Which of the following roles in the Medical Writing field you have been during your career path? (select all that are applicable)

- Medical Writer/Scientific Writer/Publication Writer
- Copyeditor
- Scientific Editor
- Medical Information Writer/Manager
- Medical/Scientific Lead
- Project Manager/Project Specialist/Project Coordinator
- People Manager
- Operations Manager
- Account Manager/Service Liaison
- Medical Communication Lead/Publication Manager/Service Manager
- Any Other (please specify)

8. Do you think that the Medical Writing field provides you a platform to utilize your education and skills?

- 1–3: no, very little
 - 4–7: somewhat, to a good extent
 - 8–10: fully, to a great extent
- | | | | | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

9. How would you like to grow in the Medical Writing field?

- As a functional expert (Senior/Expert Writer, Scientific Editor, Scientific/Medical Lead, etc.)
- As an operational expert (People Manager/Account Manager/Project Manager, etc.)
- Move outside Medical Writing profession
- Cannot say

10. How long would you like to continue in the Medical Writing field?

- 1–3 years
- 5–10 years
- > 10 years

Appendix: Survey questions